



## PATENT ABSTRACTS OF JAPAN

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(54) **PRODUCTION OF GRANULAR NONIONIC  
 DETERGENT COMPOSITION**

## (57) Abstract:

**PROBLEM TO BE SOLVED:** To obtain a granular nonionic detergent compsn. which contains a reduced amt. of fine powder though it contains an oil-absorbent carrier by spray drying an aq. slurry contg. an alkali metal silicate, an acidic substance, and a detergent builder and subjecting the resultant particles and a nonionic surfactant to granulation by kneading and crushing.

**SOLUTION:** A slurry is prepd. by successively dissolving or dispersing 1-40 wt.% alkali metal silicate (e.g. sodium silicate), an acidic substance in an amt. of from an amt. necessary for neutralizing the alkali metal silicate to three times the necessary amt., and 1-60 wt.% detergent builder (e.g. an alkali builder or a chelate builder) in water. 5-70 wt.% dried particles obtd. by spray drying the slurry, 10-50 wt.% nonionic surfactant, a clay substance, a fluorescent agent, a bleaching agent, etc., are subjected to granulation

by stirring or granulation by kneading and crushing to give the objective granular nonionic detergent compsn. Examples of the nonionic surfactant used are a polyoxyethylene alkyl ether, a polyoxyethylene alkylphenyl ether, and a fatty acid alkyl ester alkoxyate.

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